

Title (en)
SYSTEMS FOR THE INTRAPULMONARY DELIVERY OF AEROSOLIZED AQUEOUS FORMULATIONS

Title (de)
SYSTEME ZUR INTERPULMONAREN VERABREICHUNG VON WÄSSRIGEN LÖSUNGEN

Title (fr)
SYSTEMES D'APPORT INTRAPULMONAIRE DE FORMULATIONS AQUEUSES EN AEROSOL

Publication
EP 0701457 A1 19960320 (EN)

Application
EP 94918107 A 19940520

Priority
• US 9405825 W 19940520
• US 6566093 A 19930521
• US 16697293 A 19931214

Abstract (en)
[origin: US5497763A] A disposable package is provided which makes it possible to hold and disperse therefrom liquid, flowable formulations including aqueous formulations (solutions or dispersions with particles less than 0.25 microns in diameter) of a pharmaceutically active drug. The formulation is packaged in individual dosage unit containers which containers are preferably interconnected. The package is designed to be integrated into a cassette which can be loaded into a dispersing device capable of individually opening dosage unit containers and aerosolizing the contents through a porous membrane, into a mouth piece on the cassette, for delivery to a patient. In addition to and alongside of each porous membrane, the package preferably includes one or more openings through which air is forced in order to aid in avoiding the accumulation of aerosolized particles. The package is configured so that the formulation is held in a container not positioned directly vertical to and below the porous membrane, thus making it necessary to channel formulation horizontally to the porous membrane and making it possible to include a vibrating mechanism directly below a chamber covered by the porous membrane. Release of aerosolized drug is breath actuated in a manner so as to provide for repeatable dosing of drug to the patient.

IPC 1-7
A61M 11/00; **B65D 83/10**

IPC 8 full level
A61J 1/14 (2006.01); **A61J 3/00** (2006.01); **A61K 51/12** (2006.01); **A61M 11/00** (2006.01); **A61M 13/00** (2006.01); **A61M 15/00** (2006.01); **B65D 81/24** (2006.01); **B65D 81/32** (2006.01); **B65D 83/00** (2006.01); **A61J 1/03** (2006.01); **A61J 7/04** (2006.01); **A61M 16/00** (2006.01)

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Cited by
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